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ABSTRACT

This paper reviews what is known about the impact on student achievement after schools are desegregated. The primary purpose of this review is to identify children that may be in need of special help during the transition to the desegregated environment and to determine the type of help needed to enhance their achievement. The use of test scores as an argument for or against desegregation is rejected; it is held that legal and historical imperatives alone require an end to past wrongs. Existing desegregation studies are noted to be often flawed, with methodological weaknesses and insufficient emphasis on classrooms. It is further noted that all too frequently, an integrated school has racially segregated classrooms. Given these caveats, however, the report concludes that desegregation does have a positive effect on achievement. This is especially true where integration occurs at the classroom level, rigid tracking is avoided, children gain access to integrated schooling at a very young age, and the program endures over time. These findings support the legal and historical arguments for continuation of efforts to racially integrate schools. (Author/GC)

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STUDENT ACHIEVEMENT IN AN INTEGRATED SETTING

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STUDENT ACHIEVEMENT IN AN INTEGRATED SETTING

LEC-83-11

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September, 1983

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ABSTRACT

This paper reviews what is known about the impact on student achievement after schools are desegregated. The primary purpose of this review is to identify the children that may be in need of special help during the transition to the desegregated environment, and to determine the type of help needed to enhance their achievement. This paper also rejects the use of achievement test scores as an argument for or against desegregation. Regardless of what the test scores say, legal and historical imperatives require an end to past wrongs.

The author also notes that desegregation studies are often flawed. Methodological weakness abound. Most importantly, very few of these studies examine classrooms. Most examine schools, and all too often, an integrated school provides racially segregated classrooms. Given all these caveats, the evidence appears to indicate a positive effect on student achievement, especially where integration takes place at the classroom level; rigid tracking is avoided; children gain access to integrated schooling at a very young age; and the program endures over time. These findings support the legal and historical arguments for continuation of efforts to racially integrate schools.

CONTENTS

INTRODUCTION 1
The Irrelevance of Education Outcomes 2
The Quality of the Data 7

THE RESEARCH FINDINGS 8
The Coleman Report and Other Surveys 8
Coleman Report 8
Studies of Desegregation Programs 10

WAYS TO ENHANCE ACHIEVEMENT IN A DESEGREGATED SETTING 12
Classroom Integration 12
Duration of Segregation 13
Age of Child 14
Social and Political Support 15

CONCLUSIONS 15

FOOTNOTES 17

STUDENT ACHIEVEMENT IN AN INTEGRATED SETTING

by Patricia M. Lines/*\

September, 1983

INTRODUCTION

For years, many educators urged school desegregation, basing their arguments on a belief that this would enhance the education of minority children. They forwarded a variety of theories to explain why racially balanced schools should aid or retard achievement. Most focused on school resources, arguing that predominantly white schools are better endowed, and that equal educational opportunity for minorities would require equal access to these superior resources -- not only physical resources, but such things as pupil-teacher ratios, more experienced teachers and diversified facilities, and the presence of advantaged children who "teach" their less advantaged peers. Other theoretical explanations are also plausible. If minority pupils feel stigmatized by an all-minority school, for example, removal of the stigma would boost their educational attainment without having an adverse effect on majority students. If combining two or more cultures in a single school produces a lively and exciting atmosphere unattainable among masses of homogeneous children, everyone might gain.

For just as many years, other social scientists have believed that the research showed a decline, or no impact, in student achievement following desegregation. This group argued that minority children, who are often educationally disadvantaged, could not compete with majority children without special compensatory programs. They sometimes argued that without education gains, there was no justification for the high cost of busing. The money would be better spent in other ways. Or they argued that desegregation in the face of a hostile community attitude toward the program could damage the self-esteem of black children more than attendance at an all-black school. They urged quality education in

racially isolated schools rather than desegregation.

The Irrelevance of Education Outcomes

Both sides of this argument missed the point, at least in the early days of this debate. Courts have ordered desegregation remedies to correct past wrongs, not to achieve a change in test scores. While there was some discussion in Brown v. Board of Education/1\ on improvement of self-esteem and equity in resources, including resources available from peers in a school, this was not central to the case. Brown is based on legal and historical wrongs, and a need to correct them. Thus, adverse education outcomes, if they exist, do not justifiy a failure to desegregate where desegregation is legally required; they must be dealt with in the integrated setting./2\

Now, even David Armor, the most outspoken social scientist criticizing busing programs, admits that "more is at stake in desegregation policy than the academic progress of students."/3\ Armor continues to maintain, however, that

> It is one matter to agree that school desegregation is a highly desirable policy and quite another to make it compulsory regardless of other considerations. The moral imperatives permitting coercion in social policy make it unlikely, in my opinion, that our courts would have abandoned the traditional neighborhood school policy in favor of mandatory busing without the belief that they were actually benefitting the education of black students./4\

Armour really hasn't examined judicial opinion on the point. The court have always been concerned with the historical coercion of Blacks, who were segregated regardless of other considerations. And where more coersion is needed to put the matter straight, the courts have not hesitated to employ it. Even in Brown, where the issue of black student achievement is discussed, it is done so as part of the Court's rhetoric:

> Segregation of white and colored children in public schools has a detrimental effect upon the colored children. The impact is greater when it has the sanction of law; for the policy of separating the races is usually interpreted as denoting the inferiority of the

> Negro group. A sense of inferiority affects the motivation of a child to learn. Segregation with the sanction of law, therefore, has a tendency to [retard] the educational and mental development of Negro children and to deprive them of some of the benefits they would receive in a racial[ly] integrated school system./6\

The Court also noted that "To separate [minority children] . . . from others of similar age and qualifications because of race generates a feeling of inferiority as to their status in the community that may affect their hearts and minds in a way unlikely ever to be undone."/7\

The Court also cited some social science research, but this material was mostly general and theoretical./8\ The Court may have been thinking about measures of equality, but the primary significance of Brown was to reject the "separate but equal" doctrine of Plessy v. Ferguson./9\- The language relating to vaguely defined educations benefits for children was not the essence of the case. Even if assumptions about educations benefit cannot be scientifically established, it is not an invitation to allow segregation to continue. The Court in Brown relied upon the inherent inequality resulting from a situation where people have no choice in the matter, and are segregated upon the assumption that they are inferior.

While the Supreme Court has decided many desegregation cases since, it has wisely avoided discussing measures of academic performance in support of these decisions. In a case decided immediately after Brown, invalidating segregated schools in Washington D.C., on the basis of the due process clause rather than the equal protection clause (which applies only to states), the Court made no reference to any educational effects:

> Segregation in public education is not reasonably related to any proper governmental objective, and thus it imposes on Negro children of the District of Columbia a burden that constitutes an arbitrary deprivation of their liberty in violation of the Due Process Clause./9\

Moreover, when determining whether a constitutional violation has occurred, the Court has continued steadfastly to require proof of intentional acts to segregate children. Were inequality a matter of education outcome, this would not be required. But

regardless of outcome, good or bad, the Court will not require a district to desegregate merely because of racial imbalance, so long as that imbalance is due to factors beyond the control of school officials./10\

For the most part, lower courts have not had to deal with the social scientist's inquiries into the effects on academic achievement when deciding school segregation cases, as most lawyers have the good sense not to introduce it into evidence. Where social science research has been introduced as a basis for deciding a case, it has been rejected.

For example, the early Coleman analysis of the Equal Education Opportunity Survey (EEOS)/11\ suggested that children from lower-income families benefit educationally from exposure in school to substantial numbers of children of upper socioeconomic status. Because whites are generally richer than Blacks, lawyers attempted to persuade the lower federal courts to maintain a majority of white pupils in some of the schools in order to establish a middle class milieu there. They even brought in Dr. Thomas Pettigrew of Harvard University as an expert witness in support of the desirability of this result. The court had difficulty with the majority white requirement, however, because it left many other schools virtually all-black. Here was a clear case of conflict between advice based on social science evicence and classic legal requirements for correction of intentional segregation. Thus, the Court rejected the social science evidence as relevant to the case./12\

This question reappeared in Brunson v. Board of Trustees,/13\ where the district was less than ten percent white. The school board sought to concentrate the white pupils in a predominantly white school, again citing the Pettigrew thesis, and arguing the lack of education advantage in having schools which were more than 35 to 40 percent black. In other words, most of the black children in the district should attend all black schools, so that a few of the black children could benefit from the presense of a majority white school. The court again rejected this kind of reasoning.

In a separate opinion, Judge Sobeloff discussed this issue directly, pointing out that: "Brown articulated the truth that Plessy chose to disregard: that relegation of blacks to separate facilities represents a declaration by the state that they are inferior and not to be associated with."/14\ Sobeloff then directly attacked the scientific arguments, as adequate to decide a case that raised historical and moral issues.

Specifically, he rejected the notion that a school required a majority of whites:

> This idea . . . is no more than a resurrection of the axiom of black ineriority as justification for separation of the races, and no less than a return to the spirit of Dred Scott. The inventors and proponents of this theory grossly misapprehend the philosophical basis for desegregation. . . . Certainly it is hoped that under integration members of each race will benefit from unfettered contact with their peers. But school segregation is forbidden simply because its perpetuation is a living insult to the black children and immeasurably taints the education they receive./15\

Sobeloff was not rejecting scientific evidence as unsound or irrelevant to policy. He was rejecting the idea that any proof of education outcome was relevant to a desegregation decision:

> This is no mere issue of expert testimony. It is no mere question of "sociology and eduational theory." . . . [R]eadiness even to entertain the idea reflects . . . a profound misunderstanding of the social and constitutional history of this nation and the Negro people./16\

In like manner, courts have rejected research showing "white flight" following desgregation as a basis for keeping a handful of schools majority white when legal principles require a comprehensive desegregation plan./17\

The courts have also rejected social science research as a guide when it argued in favor of a certain type of desegregation, if the legal arguments pointed another direction. Specifically, in the Richmond, Virginia case, Bradley v. School Board, the district court reviewed the evidence on achievement following desegregation, including the Coleman report, and was convinced that a metropolitan wide desegregation plan was needed in order to help the minority children recover from the deleterious effect of prior legal segregation in Richmond./18\ The evidence failed to establish any wrongful intent to segregate the metropolitan area./19\ As the wrongful acts extended only to the city of Richmond, the remedy could extend only that far, regardless of the expected education benefit of extending it further.

The judges in these cases were making legal and moral decisions. It is extremely important to understand why they separate the research from historical and legal imperatives. Indeed, following the latest research findings may provide a capricious guide to policy. At one point, for example, the research suggest that it would be most beneficial to desegregate younger children./20\ Pursuing this logically, without reference to moral standards, would lead governments to desegregate the early grades, but not the older children. The arbitrariness of this should be obvious.

The research may suggest even more absurd results, from a legal and moral point of view. Some researchers believe they have detected a difference in male and female responses to integration. Based on her own, and a few other studies, Nancy St. John, for example, observed a tendency for black boys to benefit more than black girls in recently desegregated schools./21\ If this analysis is followed, among blacks, boys, but not girls, would be assigned to schools with white pupils. Since there is some evidence that white girls fare better than white boys following desegregation, one might also suggest placing them with black boys, while maintaining separate schools for the black girls and white boys. Those who argue that schools should do only what improves test scores would undoubtedly balk at this suggestion.

Pursuing the research as a guiding star leads into even thicker morasses. The EEOS data show a strong trend in southern metropolitan areas toward higher test scores for children in totally black schools; a similar, but weaker relationship exists in the rural South; in the North it is negligible./22\ If a rise in test scores were the only justification for desegregation, the metropolitan South should be exempted: black pupils would be placed in 100 percent black schools. Professor Armor, who examined a sample of black ninth graders, found upper ability males in the Northeast were more likely to plan for college if they attended desegregated schools, and the reverse in the Midwest./23\ This would suggest desegregation for black upper ability males in the Northeast, but not for lower ability peers, or male black students elsewhere in the country. Moreover, it is likely that the groups which benefit will change from time to time. Allowing the evidence of educational benefit to guide desegregation policy leads inevitably to capricious results.

Fortunately, the Constitutional mandate requires a remedy for intentional acts of segregation. Where

public officials denied equal protection to a class of citizens, redress must be made. This does not require proof of education benefit.

There are valid uses for social science research, however. Such evidence should be consulted in order to identify problems, and solutions to those problems. If desegregation can be proven to have a detrimental impact on education outcomes for any population, then we must understand why, and offer special programs and special assistance to those populations. It has been properly used to help courts fashion a remedy that includes remedial components./24\ If desegregation can be proven to have a beneficial effect on education outcomes for any population, then we must again try to understand why, and work on enhancing this effect, and extending it to other populations. As such, social science becomes a valuable diagnostic tool. Its irrelevance to the constitutional issues is clear; but its educational relevance cannot be ignored.

The Quality of the Data

Before consulting the research, it is also important to note that desegregation studies are often flawed./25\ Methodological weakness abound. Most importantly, very few of these studies examine classrooms. Most examine schools, and all too often, an integrated school contains racially segregated classrooms.

The research usually defines educational attainment by ability or intelligence tests, a wavering and uncertain measure which varies over time for an individual, and for whole groups of children. Moreover, because it is so unclear what it is society really wants schools to do, there is no guarantee that tests measure the right things. At best, test scores provide a somewhat reliable and objective measure of a child's acquisition of specific, limited skills.

But this is not the only defect in the techniques. Some of it, such as the Coleman Report is based on survey data. Yet, surveys do not "prove" causality. Moreover, where several factors are bound together in a statistical relationship, it is difficult to determine which is related to which. A variety of interpretations may also be extracted from the same data. The close associations of affluence, parental achievement, class status, good health, school quality, and higher test scores, for example, make it difficult to assess the

impact of any isolated factor.

Both surveys and studies of actual integration efforts are further plagued by the absence of adequate comparison, or control groups. Surveys are also extremely sensitive to the statistical procedures followed. Thus, in order to evaluate fully the conclusion made in the research, it would be necessary to re-examine data, procedures, statistical methods, and even arithmetic. The list of potential defects is long enough to obscure the results and make it foolhardy to put much faith in any single study or report.

It is also difficult to compare one desegregation program with another. The studies of desegregation rarely utilize the same standard for defining "segregated" and "desegregated" schools. In one study, white children may be considered desegregated if they attended school with 20 or 30 Black children in their grade level of 200 or 300 students. In fact, segregation may be a state of mind in heterogeneous schools. Some schools may "feel" integrated, even with a 60% minority population. Others may feel segregated at 40% minority. Much depends on the self perception of those in the school compared to nearby schools.

Finally, no experiment has compared test scores of various racial groups, rich and poor, as classroom racial and socioeconomic composition was systematically varied. Analysis has had to rest instead on surveys at worst and long individual studies of desegregation efforts at best. These have led to inconsistent conclusions, or none at all.

THE RESEARCH FINDINGS

The Coleman Report and Other Surveys

Coleman Report

With the actual emergence for the first time of desegregated schools in the sixties, social scientist have been able to collect data on student achievement and have produced a multitude of studies on the subject. One of the earliest and most comprehensive studies of this issue was undertaken by James Coleman. The Coleman Report, based upon an examination of data collected in HEW's 1965 Equality of Educational Opportunity Survey, lends some support to the "peer group learning" theory.

It noted a small relationship between pupils' achievement test scores and the percentage of Whites in the school, and a stronger relationship between test scores and socioeconomic backgrounds./26\ Coleman concluded:

> The higher achievement of all racial and ethnic groups in schools with greater proportions of white students is largely, perhaps wholly, related to effects associated with the student body's educational background and aspirations. This means that the apparent beneficial effect of a student body with a high proportion of white students comes not from racial composition per se, but from the better educational background and higher education aspirations that are on the average found among white students./27\

Christopher Jencks, using the same data as Coleman, compared first and sixth grades in schools in the urban North which were 50 to 75 percent white. Black first graders in these schools scored below the national average for black children; black sixth graders scored above. White first graders scored below their peers elsewhere, while white sixth graders in the same school scored very close to the white national average. This analysis must be received with reservations: first grade children might have had different socioeconomic characteristics than sixth grade children in the same schools, the tests were different, and the first grade test was not reliable./28\ Nonetheless, the analysis offers tentative support for maintaining that racial balance increases both black and white pupils' test scores. It also undermines the "peer group learning" theory since white pupils experienced no decline in scores when attending at schools 25 to 50 percent black. Several other surveys of more limited populations have produced mixed results./29\

Studies of Desegregation Programs

Studies of actual desegregation reveal more confusing results. Early reviews of the research by Meyer Weinberg, Nancy St. John and Robert O'Reilly report, on the whole, statistically insignificant results./30\ However, most of these early studies also report a few significant differences in minority pupils' test scores in predominantly white and predominantly minority schools, at some grade levels on some tests./31\ More often than not, the differences show higher scores for minorities attending majority white schools. White pupils' scores are reported less frequently, and significant findings are scarcer. However, the evidence fails to show any negative impact on these children./32\ A relatively recent review by Robert L. Crain and Rita E. Mahard of 93 desegregation studies found some improvement for Blacks following desegregation -- enough to erase about half the gap in test scores between Whites and Blacks./33\

None of these reviews were as careful in selecting studies for inclusion as was Ronald A. Krol in his study reported in 1978. Krol introduced new sophistication into the analysis of desegregation data./34\ He sought to analyze existing studies by means of meta analysis, or a process of analyzing existing analyses. He identified 129 studies that satisfied six relatively rigid criteria: a study had to be longitudinal rather than a cross sectional survey made at a single point in time; the study had to measure achievement in quantitative terms; the study had to report the number of students and the variation in scores within the population; studies of attitudes only were rejected; and the study had to measure achievement, rather than I.Q. as a measure of student achievement. This left him with 129 separate analyses reported in 55 studies. Krol found that in a slim majority of the analyses, the average achievement score for the desegregated group exceeded that of the segregated group by as much as .16 standard deviations./35\ In only 10 cases did the segregated group score less than the desegregated group./36\ Krol concluded that there seemed to be small positive gains following desegregation, and that "[o]ne cannot say based on this study that desegregation produces harmful effects."/37\

Armor and other members of a panel sponsored by the National Institute of Education have also applied meta analysis to 19 carefully selected studies. The panel developed even more rigid criteria than did Krol, requiring, for example, the existence of a segregated

control group, in addition to pre- and post-test measurements (defining segregation as 50% or more Black). Of 47 different tests at various grade levels, they found 11 with significant differences; of these, nine were positive and two negative./38\ Only one panelist was willing to view the math results favorably. The panel was mixed in its interpretation of reading effects./39\

But the policy implications are not, as Armor suggests, that "[t]here is little justification for forcing parents and children into expensive, time-consuming cross-town bus rides when there is no educational advantage."/40\ The policy implications are best drawn from history and law. Social science research can help achieve the legal requirement -- and make the consequences less less pleasant. The effects of legally segregated schools must be reversed. Given the moral and legal requirements, it becomes imperative to break the research down more finely, to find clues for the frequent lack of results, and identify better methods of achieving desegregation.

WAYS TO ENHANCE ACHIEVEMENT IN A DESEGREGATED SETTING

This brief review of the research suggests either no change, or a small gain as a result of desegregation. It may be more helpful to identify the correlates of success, when found in a relatively rigorous study. A few clues have appeared, and they may suggest fruitful questions for future research efforts.

Classroom Integration

In some studies, a closer analysis has revealed the absence of real desegregation, that is, classroom desegregation. The widespread use of ability grouping, or tracking, in perhaps 75 to 90 percent of all schools/41\ sometimes results in studies of "desegregated" youngsters who were actually separated from middle-class whites and isolated in their classroom. After the two years of "desegregation" in Riverside, California, for example, someone noticed that most minority students had been grouped together or placed with low achievers. They continued to perform below norms. The most able minority group children, however, were placed in majority white classes and increased their test scores./42\ The study, in effect, reveals nothing about the effects of desegregation on minority group pupils generally.

Sometimes educators defend such classroom assignments as educationally necessary. Tracking is urged by those who believe that teachers are better able to gear their presentations if the students are relatively homogenous. But this practice often has the effect of isolating poor and minority students from majority, wealthier students, both because of educationally disadvantaged backgrounds and errors in classification. The implementation of tracking can seriously thwart desegregation plans. Thus, the education justification for it should be carefully examined.

Tracking, or ability grouping on a more-or-less systematic and permanant basis, has failed to provide any conclusive advantage to any of the students tracked./43\ Students of average and low achievement tend to do less well when segregated by achievement level./44\ Students in lower tracks also tend to display lower self-esteem, and higher rates of misconduct, dropping out, and delinquency./45\ Lower tracked students are less likely to plan to attend college./46\ All in all, tracking appears to be a

practice with serious negative implications for equal education opportunity, and no countervailing educational justification. In effect, tracking is another form of segregation, extending to classrooms a practice that once applied to buildings.

Duration of Segregation

Desegregation may also be too shortlived to be real. A few days in an integrated school are unlikely to produce a lasting or measurable educational change, and even a full school year may be insufficient. One study of a city-to-suburb busing program, Hartford's Project Concern,/47\ noted a cumulative effect after the program had been underway for three years. Children who had been in the suburban system all three years scored consistently higher than children who participated only one or two years. No statistical analysis was made of the data, however. Coleman also reported a small positive relation between the number of years minority students spent in white schools and improvement in their achievement test scores./48\ This relation remained when the socioeconomic status of the school was held constant. Similarly, according to surveys in Boston/49\ and Pittsburgh,/50\ black children in white schools for two years scored higher in arithmetic. An Indiana study/51\ reported that black first graders were at roughly comparable levels in segregated and desegregated schools, but by the third grade, those in integrated schools moved ahead. Their advantage continued into the sixth grade. Similarly, a comparison of majority white and majority black schools in an upstate New York town/52\ revealed no significant differences in achievement test scores, but a cumulative advantage appeared for black students experiencing at least two years in majority schools. On the other hand Craine and Mahard's secondary analyses of a large number of desegregation studies suggests that duration of desegregation has no further impact on test scores./53\ And Krol's meta analysis found no difference in outcome because of duration of the desegregated experience./54\ None of the studies selected by the current NIE panel examined a period greater than three years. Within this serious limitation, there was no evidence of a cumulative effect resulting from desegregation./55\

Age of Child

Many studies suggest that integration in the early grades may be the decisive element in improving achievement scores of minority children. Crain and Mahard carefully re-examined 93 desegregation studies, regrouping the data into 323 samples. Their results lend considerable support for the view that children benefit most if desegregated "during the very earliest primary school grades."/56\ St. John reaches a similar conclusion./57\ Krol, on the other hand, found no evidence that age made a difference./58\ The NIE meta analyses yielded mixed results for students desegregated at an early age./59\

But in individual studies, the age factor persistently reappears. Studies in individual cities reveal some differences. A Nashville study of 75 black children enrolled in desegregated schools found, for example, that those who entered the desegregated schools in the early grades, scored higher on academic achievement tests than peers from the same neighborhoods, who remained in segregated schools. In the fifth and sixth grades, however, the segregated children performed better than their black peers in the white schools./60\ A study of 87 low income blacks in a suburban New York town reported that the youngest children showed the greatest test score improvement in achievement after transferring to upper income white schools./61\ In New Rochelle, only kindergarten children showed a significant gain when transferred from all-black to white schools./62\ An Ann Arbor study also found that transferred kindergarten pupils (minority-to-majority) showed the greatest I.Q gains, but because of the small number, the researcher was unable to conclude that the gain was statistically significant./63\ Hartford's Project Concern reported test score gains for participating children in grades K-3; the first grade children were above grade level, but by the fourth grade, the difference between the scores of children in the suburban schools and children remaining in Hartford schools (80% black) had become less noticeable. By the fifth grade scores were even./64\ In Sacramento, desegregated children in grades 1-4 surpassed their peers in reading and arithmetic scores. Still segregated fifth graders, however, "beat" desegregated children on the reading test; desegregated fifth graders came out ahead in arithmetic scores, but the margin was slimmer than it was for the younger children./65\ In Evanston, elementary school pupils apparently made small gains following desegregation, while eighth grade pupils did not, although other factors may have caused

backsliding among older students./66\ Less data is available for analyzing the effects of desegregation on white scores, since many of the desegregation programs studied placed only a few black chilren in white schools, leaving its racial composition virtually unchanged.

The apparent responsiveness of young minority children in so many school districts lends some support to a theory based on the effects of the stigma attached to a predominantly black school. If racial isolation, for example, produces a sense of inferiority, children probably acquire it early and find it difficult to shake. Disparate responses of younger and older children are inexplicable within the other theoretical effects. Clearly, the age factor is one that would be worthwhile to study further.

Social and Political Support

Very few of the studies examined the social and political context of the desegregation effort. The willingness of the community to desegregate and the use of voluntary efforts may well enhance the positive impact of these efforts./67\ One researcher believes that widespread community resistance to busing, coupled with a rapid desegregation program, will erode the scores of students./68\

Conclusions

Desegregation, the classic tool for serving the underserved, has considerable potential for achieving this goal. Not only does it correct historical and legal wrongs, but if done properly, it can have an important educational impact. While the present state of the research at best provides only clues to significant features of a sound plan, it appears at the very least that desegregation plans should avoid tracking and other devices that promote in-building segregation.

Willis Hawley outlines the following additional recommendations for a sound desegregation plan:

- Encourage substantial interaction among races both in academic settings and in extracurricular activities.
- If possible, organize so that schools and classrooms have a "critical mass" of each racial group being

desegregated.

- Minimize the scale of the students' educational experience and decrease the number of students with whom a given teacher has contact (e.g., smaller schools and classes).
- Develop rules and procedures for governing schools that are clear, fair, and consistent and administer them with persistence and equity (sees this as normally valuable but specially when adapting to new situations i.e. deseg).
- Maintain a relatively stable student body over time. Recruit and retain a racially dierse staff of teachers who are unprejudiced, supportive, and insistent on high performance and racial equality.
- Recruit or retrain principals and other administrators who are supportive of desegregation and exert leadership to that effect.
- Develop ongoing programs of staff development.
- Involve parents at the classroom level in actual instructional and/or learning activities.
- Interest community and parents in the desegregation process./69\

These seem to be sensible recommendations, and in the absence of any better guide, good sense should prevail.

FOOTNOTES

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1. 347 U.S. 483 (1954).

2. One of the first articles to make this point was Patricia Lines, "Desegregation and the Research, a Legal Perspective," in Inequality in Education, no. 11, at 16-34 (March 1972).

3. See David J. Armor, The Evidence on Desegregation and Black Achievement, mimeograph prepared for the National Institute of Education, March, 1983.

4. Id. at 1-2.

5. 347 U.S. 483, 494 (1954).

6. Id.

7. See 347 U.S. 494, n. 11.

8. 163 U.S. 537 (1896) (upholding segregation in transportation facilities).

9. Bolling v. Sharpe, 347 U.S. 497, 500 (1954).

10. See Washington v. Davis, 426 U.S. 229 (1976).

11. U.S. Office of Education, Equality of Educational Opportunity, at 29 (1965), hereinafter referred to as The Coleman Report. A summary and critique of the report and subsequent major reports on the EEOS data can be found in Robert O'Reilly, Racial and Social Class Isolation in the Schools, pp. 160-91 (Praeger, New York, 1970).

12. Brewer v. School Board, 434 F.2d 408 (4th Cir. 1970).

13. Brunson v. Board of Trustees, 429 F.2d 820 (4th Cir. 1970). Dr. Pettigrew's Brewer testimony is summarized at 429 F.2d 831, n. 1 (dissenting opinion).

14. Id. at 825 (concurring opinion).

15. Id. at 824.

16. Id. at 826.

17. See e.g., Morgan v. Kerrigan, 530 F.2d 401 (2d Cir. 1976).

18. 338 F. Supp. 67 (N.D. Va. 1972), rev'd, 462 F.2d 1058 (5th Cir.), aff'd 412 U.S. 92 (1973).

19. 426 F.2d 1058 (5th Cir.), aff'd 412 U.S. 92 (1973).

20. See infra at notes 55-66.

21. N. St. John, "The Effects of School Segregation and Desegregation on Children," (draft, 1971), at 8-15.

22. Coleman Report, at 31 (Table 21) and 331. See also D. Armor, "School and Family Effects on Black and White Achievement: A Re-examination of the USOE Data," (mimeograph, June 1969) at 49.

23. D. Armor, "The Racial Composition of Schools and College Aspirations of Negro Students," U.S. Civil Rights Commission, 1967, at 145.

24. See e.g. Milliken v. Bradley, 433 U.S. 267 (1977) (Milliken II).

25. For additional criticism of the research, see Meyer Weinberg, The Search for Quality Integrated Education, Westport, Connecticut: Greenwood Press, 1983, at 146--47; David J. Armour, "The Evidence on Desegregation and Black Achievement," mimeograph prepared for NIE, March 1983, at 3. Armor observes that only 19 of the total number of studies available meet the minimum requirements established by a specially appointed panel working under the sponsorship of the National Institute of Education. He also notes "only three of these studies have been conducted within the past ten years, when school desegregation has been at its peak." Id.

26. The Coleman Report, supra note 11.

27. Id.

28. Christopher Jencks and Marsha Brown, "The Effects of Desegregation on Student Achievement: Same New Evidence from the Equality of Educational Opportunity Survey," Sociology of Educ., vol. 48, no. 1, at 126-40 (Winter 1975).

29. An early review of these studies appears in Nancy St. John, "Desegregation and Minority Group Performance," 40 R. of Educ. Research 111, 116-19 (1970). She reviews 12 pre-Coleman surveys, some of which attempted to follow black students for a period of years, and concludes that integration does have a positive effect, an that this might be attribute to factors which co-vary with integration.

Meyer Weinberg, Desegregation Research: An Appraisal, 44-82 (Phi Delta Kappa, Bloomington, Ind., 1970) reported over 30 formal studies which attempt to assess the effect of integration on pupil achievement. Most of the studies failed to control for socioeconomic or other factors, although a possibility existed that the high scoring black pupils were a select group.

In the few studies where some attempt was made to control selectivity factors, results were very mixed. A study of 1388 black ninth graders in Pittsburgh, for example, revealed a positive relation between arithmetic achievement and percentage of whites in the schools, after controlling for sex, and for individual and neighborhood socioeconomic status. Nancy St. John and Marshall Smith, "School Racial Composition, Aspiration and Achievement" (mimeograph, 1969). The Dumbarton Research Council, in a survey sample from Oakland, included children with comparable parental income, educational and occupational status. The researchers found that the high scoring blacks had significantly higher status if family size, stability, and home ownership, were taken into consideration. Dumbarton Research Council, "Race and Education in the City of Oakland" (unpublished draft, 1966), reported in Weinberg, at 44-56. The results of another survey were not even this encouraging. The researcher reporte no relation between attendance at an integrated school and black pupil achievement. Robert Klein, "A Comparative Study of the Academic Achievement of Negro 10th Grade High Schools in Metropolitan Areas of the South" (doctoral dissertation, Univ. of So. Car., 1967), reported in Weinberg, at 70-71. See also D. Long, "Educational Performance in Integrated and Segregated Elementary Schools" (doctoral dissertation, Yeshiva Univ., 1968, reported in Dissertation Abstracts, 412 (1968), and in Weinberg, at 73-74.

30. Meyer Weinberg, Research on School Desegregation: Review and Prospect, Chicago: Integrated Educ. Associates, 1965; Weinberg, Desegregation Research: An Appraisal, Bloomington, Ind.: Phi Delta Kappa (2d Ed. 1970); Nancy St. John, "Desegregation and Minority Group

Performance," Review of Educ. Research, vol. 40, at 111-33 (Feb. 1970); St. John, School Desegregation Outcomes for Children, New York: Wiley, 1975; Robert O'Reilly, supra, note 11.

31. Of the 14 studies reported in O'Reilly, for example, only one reported no significant differences between integrated and nonintegrated students at any grade level. This one imposed the strictest controls for socioeconomic status and school quality. Students in grades K-2 were matched for intelligence and social class and attendance at schools with comparable facilities, personnel and programs. See D. Long, "Educational Performance in integrated and Segregated Elementary Schools" (doctoral dissertation, Yeshiva Univ., 1968), reported in Dissertation Abstracts 412 (1968).

32. Robert L. Crain and Rita E. Mahard, "Minority Achievement: Policy Implications of Research," in Willis D. Hawley, ed., Effective School Desegregation: Equity, Quality, and Feasibility (London, Sage Publications 1981).

A study of white children in Denver revealed no adverse impact on white children following desegregation. In six of 13 tests, they scored significantly higher than a control group. However the "experimental" or desegregated white children attended schools that had been less than 10% Black children in these grade levels. See Bonnie Todd Scudder and Stephen G. Jurs, "Do Based Negro Children Affect Achievement of Non-Negro Children?" Integrated Education. Vol. 9, no. 2 at 30-34 (1971).

White Ann Arbor pupils improved slightly, but the change was statistically insignificant. White Chapel Hill fifth graders made significant gains in math courses. In Evanston both black and white eighth graders scored lower. Usually white test scores were unaffected. P. Carrigan, "School Desegregation via Compulsory Pupil Transfer: Early Effects on Elementary School Children," (Report to U.S. Office of Education, Bureau of Research, Sept. 1967) (Ann Arbor); P. Prichard, "Effects of Desegregation on Student Success in the Chapel Hill City School," Integrated Education, vol. 7, No. 6, at 33 (Nov.-Dec. 1969); Jayjia Hsia, "Integration in Evanston, 1967-71; A Longitudinal Evaluation," (Educational Testing Service, Evanston, Ill., Aug. 1971.

33. Crain and Mahard, supra note 32.

34. Ronald A. Krol, "A Meta Analysis of Comparative Research on the Effects of Desegregation on Academic Achievement", doctoral thesis, Western Mich. Univ., 1978 (Univ. Microfilms Order No. 7907962).

35. Id. at 105.

36. Id. at 108.

37. Id. at 124.

38. Armor, supra note 3.

39. Id. at 35.

40. Armor, supra note 3, at 37.

41. A 1962 survey of 3,418 school districts of over 2,500 in population reported that 77% of the elementary schools and 90.5% of the high schools were ability grouped to some degree. National Education Association, Research Division, "Ability Grouping" (Research Memo 1962-29, Washington, D.C., 1962). Most of those who reported no ability grouping were planning to institute grouping in the future. See also, Cohen, Pettigrew and Riley, "Race and Outcomes of Schooling," in Mosteller and Moynihan, eds., On Equality of Educational Opportunity, (Ranom House, 1971) p. 355. Based on the EEO data, they reported that among secondary schools surveyed 89.9% at grade twelve and 91.3% at grade nine practiced some form of ability grouping.

42. H. Gerard, "Factors Contributing to Adjustment and Achievement," (Progress Report 15-16, Dept. of Psychology, U. of C. at Los Angeles, mimeograph, May 1969)

43. See Caroline H. Persell, Education and Inequality: A Theoretical and Emperical Synthesis, New York: The Free Press (1977).

44. See W.R. Borg, Ability Grouping in the Public Schools, Madison, Wisconsin: Dembar Educ. Research Services (1966); Warren Findley and Marian Bryan, Ability Grouping --1970 (ERIC Doc. No. ED 048382), Athens, Georgia: College of Education, University of Georgia (1970).

45. W. Schafer & C. Olexa, Tracking and Opportunity, Scrant, Penn.: Chandler Pub. Co. (1971).

46. K.L. Alexander, M. Cook, and E.L. McDill, "Curriculum Tracking and Educational Stratification: Some Further Evidence," Am. Sociological Rev., Vol. 43 (1978), at 46--66.

47. T. Mahan, Jr., "Project Concern, 1966-69: A Report on the Effectiveness of Suburban School Placement for Inner City Youth," (Conn. Dept. of Educ., Aug. 1968); T. Crane, "A Three Year Summary of Hartford Project Concern," (Conn. Dept. of Education, Oct. 1970).

48. Coleman Report 29, 32 (Table 22), 331.

49. N. St. John and R. Lewis, "The Influence of School Integration on Academic Achievement," (mimeograph, Harvard Univ., Apr. 1971).

50. N. St. John and M. Smith, "School Racial Experience, Achievement and Aspiration," (draft mimeograph, 1970).

51. I. Samuels, "Desegregated Education and Differences in Academic Achievement," (Ph.D. thesis, Ind. Univ., 1968).

52. J. Lockwood, "An Examination of Scholastic Achievement, Attitudes and Home-Background Factors of Sixth-Grade Negro Students in Balanced and Unbalanced School," (Ph.D. thesis, Univ. of Mich., 1966) pp. 47, 50.

53. Crain and Mahard, supra, note 32.

54. Krol, supra note 34, at 113.

55. Armor, supra note 3.

56. Crain and Mahard, supra note 32.

57. St. John, supra, note 30.

58. Krol, supra, note 34, at 108.

59. Armor, supra note 3, at 33. Average effects were -.55 for desegregation of first graders; and +.35 for second graders. A few individual studies showed sizable, positive effects for early grades.

60. L. Anderson, "The Effects of Desegregation on the Achievement and Personality Patterns of Negro Children." (Ph.D. thesis, George Peabody College for Teachers, 1966), pp. 69, 85.

61. Denmark, Guttetag and Riley, "Communication Pattersn in Integrated Classrooms and Pre-Integration Subject Variables as They Affect the Academic Achievement and Self-Concept of Previously Segregated Children," (Aug. 1967), reported in Weinberg, p. 75.

62. T.G. Wolman, Learning Effects of Integration in New Rochelle, Integrated Education, Vol. 2, No. 6, p. 31 (Dec.-Jan. 1965).

63. P. Carrigan, "School Desegregation via Compulsory Pupil Transfer: Early Effects on Elementary School Children," (Report to U.S. Office of Education, Bureau of Research, Sept. 1967) pp. 101-08.

64. T. Mahan, Jr., "Project Concern, 1966-69: A Report on the Effectiveness of Suburban School Placement for Inner City Youth," (Conn. Board of Education, Aug. 1968).

65. Boston Globe, Sept. 23, 1971, p. 5, col. 4; National Observer, Oct. 2, 1971, p. 5, col. 4; National Observer, Oct. 2, 1971, p. 6, col 1.

66. Jayjia Hsia, "Integration in Evanston, 1967-71; A Longitudinal Evaluation," (Educational Testing Service, Evanston, Ill., Aug. 1971) at 38-40.

67. St. John suggests voluntarism is significant, for example. Supra, note 30.

68. Lawrence G. Felice, "The Effects of School Desegregation on Minority Group Student Achievement and Self-Concept: An Evaluation of Court Ordered Busing in Waco, Texas," Research Development Foundation, Waco, Texas, 1974.

69. Willis D. Hawley, "Equity and Quality in Education: Characteristics of Effective Desegregated Schools," in Hawley, ed., Effective School Desegregation: Equity, Quality and Feasibility (London: Sage Publications, 1981). See also Hawley, Strategies for Effective Desegregation: Lessons from the Research (Lexington, Mass.: Lexington Books 1983).